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UltraFill Home Oxygen Filling System

Frequently Asked Questions

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SIZE, WEIGHT AND SPECIFICATIONS

1. What are the dimensions of the UltraFill?

A. 9” x 20” x 25.5”

2. What is the weight of the UltraFill?

A. 45 pounds

3. What is the noise level of the UltraFill?

A. <44 dBA

4. How long does it take to fill an M6 cylinder? MB08?

A. 65 minutes for the M6, 105 minutes for the MB08.

5. How long does an M6 last on a patient? MB08?

A. The M6 gets provides approximately 5 hours 30 minutes of O2 during ambulation. The underlying assumption is that the patient is using a Respironics provided Bonsai Conserving Device at a setting of 2. The duration also assumes a patient breadth rate of 20 bpm (these assumptions are common when comparing the performance of various portable O2 devices). Under the same assumptions, the MB08 cylinder provides 8 hrs 40m of O2 (58% more O2).

6. What are the recommended operating and storage temperatures?

A. Operating: 55 to 90° F (13 to 32° C) and Storage: -30 to 160° F (-34 to 71° C)

7. What is the altitude rating of the UltraFill?

A 0 to 7,500 ft. (0 to 2,286 m)

ELECTICAL POWER

8. What is the UltraFill’s power consumption?

A. 110 Watts

9. Can I use an extension cord?

A. No, never modify the power cord or use adapters, extension cords, etc. The unit is double insulated and uses a 2 prong not 3 prong power plug. Any modification to the power cord could alter this safety feature.

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10. Can the UltraFill handle brownout conditions / what is the lowest wattage the EverFlo will tolerate?

A. The specification is 120VAC +/- 10% for agency approval. This equates to 108VAC to 132 VAC. UltraFill is tested to US and International standards for low voltage and brownout conditions.

11. What fuses or circuit breakers are in the UltraFill to protect the system?

- Mains fuse on the circuit board to protect the system electronics.
- 140 degree centigrade thermal fuse in compressor motor
- Fuse on the transformer to protect the secondary low voltage circuit.

OPERATION SUMMARY

12. What are the components of an UltraFill System?

A. The UltraFill consists of (3) primary components: concentrator, UltraFill Filling Station, & cylinder.

13. Explain the Theory of Operation for the UltraFill system?

A. The UltraFill system consists of a concentrator, UltraFill Filling Station, and cylinders. The concentrator takes ambient air and converts to oxygen enriched air. A portion of the O2 is provided to the patient via the concentrator for stationary O2 therapy. The remainder of the O2 is provided to the UltraFill Filling Station through a pneumatic tube. The UltraFill Filling station takes the O2, compresses it, and fills the cylinder. The cylinder process stops once the pressure reaches the pressure rating of the cylinder (2000 or 3000 psi). The cylinder is then used by the patient to support the portable oxygen therapy needs.

14. How does the UltraFill Filling station know when to stop filling?

A. The UltraFill measures the cylinder pressure and will stop filling once the pressure reaches the limit defined by the pressure rating of the cylinder. If the system is using 2000 psi cylinders, then the filling will stop once the O2 pressure reaches 2000 psi.

15. Do I need a different UltraFill Station for 3000 psi use versus 2000 psi?

A. No. There is only one UltraFill Filling Station. It is designed to fill both 2000 and 3000 psi cylinders.

16. How will the system "know" whether it is filling a 2000 or 3000 psi cylinder?

A. The UltraFill is designed to automatically detect a 3000 psi cylinder**.** There is a magnet in the cylinder valve of a 3000 psi cylinder. UltraFill senses the presence of this magnet when a 3000 psi cylinder is connected.

17. Can my patient breathe off the EverFlo/Millennium when the UltraFill is filling cylinders?

A. Yes, Up to 3 liters when using a 5-liter concentrator and up to 7 liters when using a 10 liter concentrator.

18. What concentrators are compatible for use?

A. **5L Concentrators**: EverFlo (OPI/non-OPI), EverFlo-Q (OPI/non-OPI) and Millennium M600 & M605.
10L Concentrators: Millennium M10

19. Can I use my IVC concentrator with the UltraFill Filling Station?

A. The UltraFill Filling Station can work with any concentrator that provides a high-pressure O2 output with a minimum pressure of 10 psi during operation. As long as the IVC concentrator has this high-pressure output (and we believe all do), then, YES, you can use the UltraFill filling station. There are two drawbacks: fill time and noise. . The UltraFill is optimized for use with the EverFlo. An UltraFill system using an IVC concentrator will have fill times approximately 100% longer than when used with an EverFlo concentrator. The UltraFill is optimized to fill from a concentrator providing at least 22 psi output. For those concentrators that have outputs less than 22 psi, there is a slight clinking noise during the fill process.

20. Does the UltraFill have an OPI sensor?

A. Yes, the UltraFill has an OPI sensor to ensure that the oxygen provided to the patient via the cylinder is at or above 90%.

CYLINDERS

21. What cylinders are available with the UltraFill?

A. The UltraFill will work with 2000 or 3000 psi cylinders. The system will come with 2 cylinders at the time of purchase. There is a small up-charge for the 3000 psi option.

2000 PSI	3000 PSI
M4	
M6	MB08
M9	MC13
MD15	MD22
ME24	ME36

22. What is the difference between 2000 and 3000 psi?

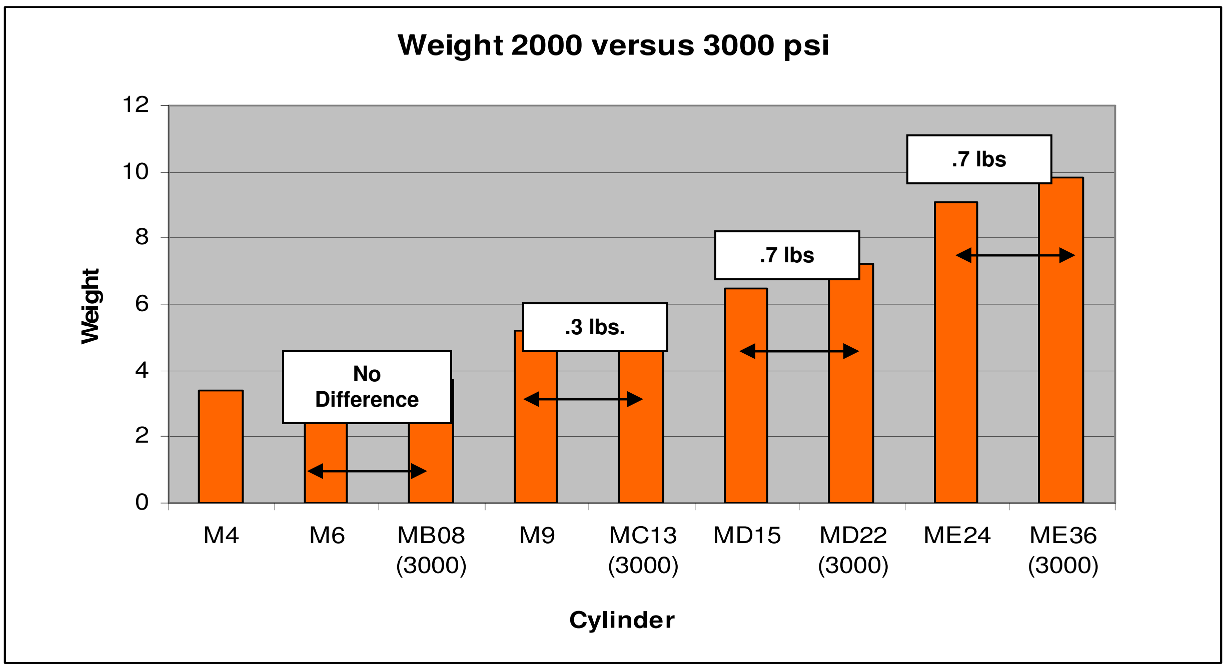
A. The vast majority of cylinders used currently are rated at 2000 psi. Since 3000 psi cylinders are filled to a higher pressure, they give the patient over 40% more oxygen than the traditional 2000 psi option

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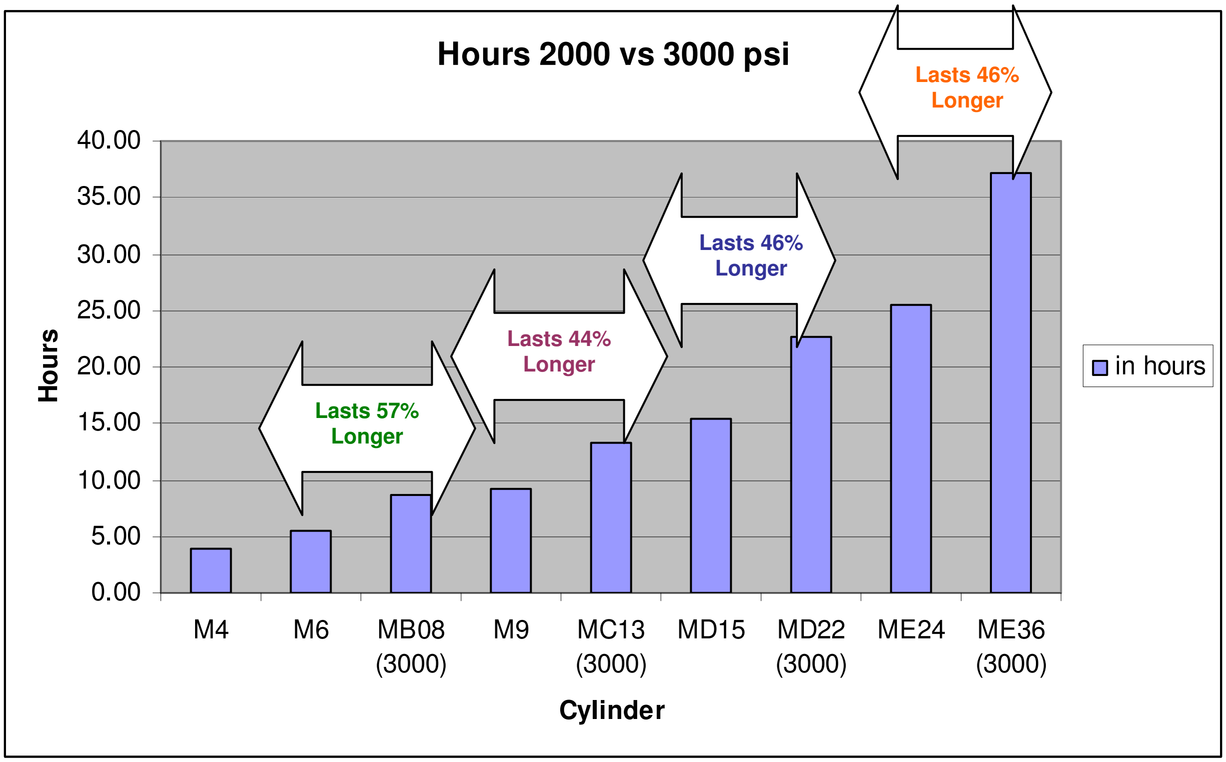
23. 3000psi sounds great, but aren't these composite cylinders expensive?

A. 3000 psi composite cylinders can be expensive to purchase. That is why we went with Luxfer's aluminum alloy version, as they are more cost-effective versus composite. They are still slightly more expensive than the comparable 2000 psi version. That being said, this slight increase in expense can be more than be justified for heavy usage patients requiring multiple cylinders or delivery type modalities such as LOX in order to support their ambulatory O2 needs.

24. Does the 3000 psi cylinder weigh more than the 2000 psi cylinder?



25. What is the difference in duration of the 2000 and 3000 psi cylinders?



Note: Based on a 4.5:1 conserving ratio at 20 breaths per min

26. I have never heard of 3000 psi cylinders are they safe?

A. Yes, both our 2000 and 3000 psi cylinders have gone through extensive safety testing with an independent company. The 3000 psi cylinders are aluminum based just like the 2000 psi cylinders, but are made from a different alloy, allowing them to fill to a higher capacity.

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27. What are the fill times for the 2000 and 3000 psi cylinders

Cylinder Size	Volume (L)	Typical Fill Times
2000 psi		
M4	103	**45 min**
M6	148	**1 hr 5 min**
C	246	**1 hr 50 min**
D	413	**3 hr 5 min**
E	679	**5 hr**
3000 psi		
MB08	232	**1 hr 45 min**
MC13	354	**2 hr 35 min**
MD22	604	**4 hr 25 min**
ME36	992	**7 hr 20 min**

28. Can I use any OCD or regulator on the UltraFill cylinders?

A. UltraFill 2000 psi & 3000 psi cylinders are equipped to connect to most major CGA-870 compatible conserving device or regulator. We have currently tested and confirmed that the ePOD, Bonsai (Chad), and EasyPulse 5 (Precision Medical) work with the UltraFill cylinders. The Chad 3100 and 4800 series regulators have also been confirmed for use with UltraFill.

It is important to ensure the conserving device or regulator has been designed, manufactured and tested for use at the pressure rating of the cylinder. The Chad Therapeutics 3100 Regulators (sdult version only) and Bonsai Conserving Device provided by Philips Respironics for use with the UltraFill system have been designed, manufactured, and tested for use on both 2000 and 3000 psi cylinders. We have also tested and confirmed the ePOD and Precision Medical EasyPulse 5 for use at both 2000 and 3000 psi use.

29. RI provides both a 3100 and 4800 regulator. What is the difference?

A. The ***4800 and 3100 pediatric regulator*** is recommended for use only with 2000 psi cylinders. Beyond that, the 4800 regulator uses brass components in the areas that make contact with low and high pressure O2. This regulator will be our standard offering. In comparison, the ***3100 regulator*** is our premium offering. the 3100 regulator utilizes ***a full brass core*** in the areas that make contact with low and high pressure O2.

Can I fill the cylinder with an OCD or regulator attached?

A. We have confirmed that the ePOD & Bonsai conserver and 3100 and 4800 regulators can stay attached to the cylinder during the filling process. In general, most OCD and regulators should be able to stay attached during filling.

30. How does my patient know when the cylinder is full?

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A. The UltraFill has (4) fill level indicators that blink then turn solid as the cylinder fills in 25% increments. The unit will also automatically stop filling when the cylinder is full.

31. Can the patient do a partial cylinder fill? Top off their cylinder?

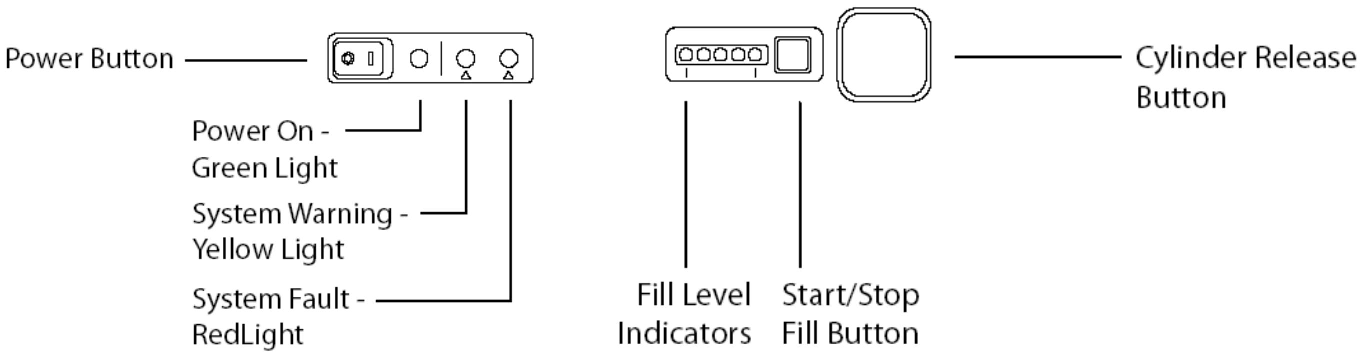
A. Yes, the patient can stop or start the fill at their convenience using the stop/start button

32. Does the patient have to know what cylinder size they are using before the start filling?

A. No, the UltraFill automatically detects the cylinder size and psi type and fills accordingly.

ALARMS AND VISUAL INDICATORS

33. What alarms and visual indicators are available for the EverFlo?



Description	Color	Function	Modes
Power Button	Power Off - None Power On - Green	When the switch is turned so that the "I" symbol is down, the device is operational.	Off - The device is turned off; mains power is not connected.
			Green light on - the device is on with no faults detected.
System Caution	Yellow	When lit, this indicates the device has detected a possible fault. The audible alarm will not shut off until the user stops the filling process and checks the device.	Off - no system issue detected.
			Flashing yellow with periodic audible beep - the device has detected that there is a low pressure fault.
			Steady yellow - the device has detected a possible O_2 purity issue.
			Steady yellow and flashing red with a constant audible alarm - the device has detected an O_2 purity issue with the oxygen cylinder.
System Fault	Red	When lit, this indicates the device has detected a fault that requires service by the provider. The device has stopped filling and will not begin filling again until the problem is corrected.	Off - No system faults have been detected.
			Steady On with Constant Audible Alarm - The device has detected a problem that prevents it from operating. Contact your home care provider for repair.

PATIENT MAINTENANCE

34. What patient maintenance is required with the UltraFill?

A. Periodically, use a damp cloth to wipe down the exterior case of the UltraFill device. If you use medical disinfectants, be sure to follow the manufacturer's instructions.

PROVIDER MAINTENANCE

35. What provider maintenance should be preformed on the EverFlo?

A. The UltraFill station requires no periodic maintenance. There is a bacteria filter located inside the device. It can be changed at the provider's discretion.

PACKAGING

36. What is included in the UltraFill System?

A. UltraFill Station, (2) cylinders (2000 or 3000 psi), (1) cylinder carry bag and user manual

The following accessories are sold separately:

Concentrator, oxygen conserving device, regulator and cylinder cart

ACCESSORIES

37. What accessories are available for the UltraFill?

A. The UltraFill accessories include: 2000 psi cylinders, 3000 psi cylinders, Small (M9 & MC13) medium (M4, M6 & MB08) and large (MD15 & MD22) cylinder carry bag, cylinder cart, cylinder t-wrench, CHAD Therapeutics Bonsai OCD, 3100 Regulator, 3100 Pediatric Regulator and 4800 Regulator. Please refer to the catalog or spec sheet for a complete list of part numbers.

SERVICE AND SUPPORT

38. What are the warranties for the various components of the UltraFill?

A. UltraFill Filling Station:3-year standard (non-transferable) warranty or 5,000 hours, whichever comes first.

Cylinders & Post-valve: 3-year standard (non-transferable) warranty.

CHAD Therapeutic Bonsai Conserving Device (accessory): 2-year warranty, passed thru from mfg.

CHAD Therapeutic 3100 Regulator (accessory): 5-year warranty, passed thru from mfg.

CHAD Therapeutics 3100 Pediatric Regulator (accessory): 5-year warranty, passed thru from mfg.

CHAD Therapeutic 4800 Regulator (accessory): 2-year warranty, passed thru from mfg.

39. What repair parts are available for the UltraFill?

A. UltraFill Repair Part list will be available in the service manual. This information can be obtained from the service department.

40. When should the UltraFill be serviced? What is recommended for servicing?

A. There is no periodic maintenance needed for UltraFill.

41. What tools are used to open device up?

A. A nutdriver would be needed to open up the back of the device. It is the same tool used to open the EverFlo.

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All Respironics devices are subject to reliability analysis and extensive verification testing. UltraFill uses industry standard components that have proven quality and reliability.

MISCELLANEOUS

42. Can the device be transported lying down?

A. Yes, however it must be upright to operate.